

REMARKS/ARGUMENTS

Claims 1 – 49 are currently pending in the application and are presented for reconsideration and further examination in view of the foregoing amendments and the following remarks.

In the outstanding Office Action, claims 1 – 49 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,125,197 to Mack et al. (hereinafter referred to as “the Mack et al. ‘197 patent”).

By this Response and Amendment,

claim 1 has been amended to recite: “differentiat[ing] a part of said image corresponding to said at least one target from another part of said image corresponding to said at least one object in said at least one image;”

independent claim 25 has been amended to recite “differentiat[ing] a part of the image corresponding to said at least one target from another part of the image corresponding to said at least one object in said at least one image;” and,

as amended, the rejections to these claims and the claims dependent thereon are traversed.

Support for the claim amendments can be found in paragraph [0017] of the published version of the present patent application. Therefore, Applicants respectfully submit that the no new matter, within the meaning of 35 U.S.C. § 132, has been introduced to the present application.

Rejection under 35 U.S.C. § 102(e)

The Examiner rejected claims 1 – 49 under 35 U.S.C. § 102(e) as being anticipated by Mack et al.

Response

By this Response and Amendment, independent claims 1 and 25 have been amended; and, as amended, Applicants respectfully traverse the Examiner's rejection as all of the features of the presently claimed invention are not disclosed, taught or suggested by the cited prior art.

The test for anticipation under section 102 is whether each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); MPEP §2131. The identical invention must be shown in as complete detail as is contained in the claim.

Richardson v. Suzuki Motor Co., 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP §2131.

Amended independent claim 1 recites: “[a] digital imaging system comprising: A. a scene illumination arrangement configured to illuminate said scene comprising at least one object and at least one target independent of said at least one object, said at least one object and at least one target capable of being illuminated, the scene illumination arrangement being configured to illuminate at least the at least one object and at least one target to facilitate disambiguation between the at least one object and the at least one target; B. an image recording device configured to record at least one image of a scene when said scene is illuminated by said illumination arrangement, C. an image processing subsystem configured to process the at least one image to differentiate a part of said image corresponding to said at least one target from another part of said image corresponding to said at least one object in said at least one image and to identify a location of the at least one target appearing in the at least one image with respect to a

local coordinate system associated with the location from which the image recording device recorded the at least one image of the scene, and for relating said local coordinate system to a global coordinate system, wherein the location of the said at least one target with respect to said global coordinate system is known independently of said at least one image.”

Amended independent claim 25 recites: “[a] digital imaging method comprising the steps of: A. recording at least one image of a scene, said scene comprising at least one object and at least one target independent of said at least one object, said at least one object and at least one target capable of being illuminated, at least said at least one object and at least one target being illuminated in a manner to facilitate disambiguation between the at least one object and the at least one target; B. processing the at least one image to differentiate a part of the image corresponding to said at least one target from another part of the image corresponding to said at least one object in said at least one image and to identify a location of the at least one target appearing in the at least one image with respect to a local coordinate system associated with a location from which the at least one image of the scene is recorded in step (A); and C. relating said local coordinate system to a global coordinate system, wherein the location of the said at least one target with respect to said global coordinate system is known independently of said at least one image.”

The Mack et al. ‘197 patent discloses a method and apparatus for extracting three-dimensional image data of an object. The object being imaged is sometimes referred to in the Mack et al. ‘197 patent as a “target object.” The system disclosed in the Mack et al. ‘197 patent uses multiple cameras positioned at various points around the object to capture three-dimensional data of the object, which is cast in a structured light. By using structured light, the contours of the object can be discerned by a computer that is matching the image of a first camera with the image of an additional camera and, thus, a three-dimensional image of the object can be produced

by the computer. To properly produce a three-dimensional image of an object the multiple cameras must be synchronized. To synchronize the cameras such that a computing device can match up a coordinate point of the first camera with a coordinate point of an additional camera, the Mack et al. '197 patent discloses using a calibration target, which is often difficult for an imaging system to differentiate from the target object.

In contrast to the presently claimed invention, the Mack et al. '197 patent does not disclose, teach, or suggest "at least one object and at least one target being illuminated in a manner to facilitate disambiguation between the at least one object and the at least one target," as recited in amended independent claim 1 or a "scene illumination arrangement being configured to illuminate at least the at least one object and at least one target to facilitate disambiguation between the at least one object and the at least one target" as recited in amended independent claim 25 of the present application. Due to the difficulty of the prior art in differentiating between a target object and a calibration target, a less than accurate image is captured by the imaging system, which sometimes even results in an image that depicts an image of an object that is fused with a calibration target. The presently claimed invention solves this problem. The Mack et al. '197 patent does not even address the problem of differentiation between an imaged object and a calibration target. As such, the Mack et al. '197 patent does not propose a solution to the problem. Thus, the Mack et al. '197 patent does not disclose illuminating a scene to differentiate between an object and a target. Thus, for at least this reason, the presently claimed invention is patentable over the Mack et al. '197 patent for at least this reason.

As recited by the claims of the present application, differentiation between an object being imaged and a calibration target is further promoted by a processing system, which differentiates the part of the captured image corresponding to an object being imaged from the part of the

image corresponding to the calibration targets. The Mack et al. '197 patent does not disclose, teach, or suggest "an image processing subsystem configured to... differentiate a part of said image corresponding to said at least one target from another part of said image corresponding to said at least one object" as recited in amended independent claim 1 of the present application. As stated above, the Mack et al. '197 patent does not even identify ambiguity between an object and a calibration target as a problem; thus, the Mack et al. '197 patent is understandably silent as to "an image processing subsystem configured to... differentiate a part of said image corresponding to said at least one target from another part of said image corresponding to said at least one object" as recited in the independent claims of the present application. As such, the Mack et al. '197 patent, for at least this additional reason, does not anticipate the presently claimed invention.

Accordingly, Applicants request that the Examiner reconsider and withdraw the rejection of presently pending claims 1 – 49.

CONCLUSION

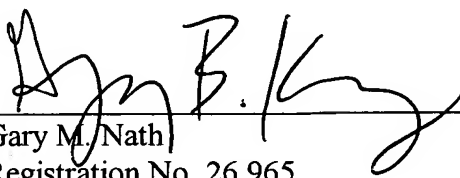
In light of the foregoing, Applicants submit that the application is now in condition for allowance. If the Examiner believes the application is not in condition for allowance, Applicants respectfully request that the Examiner contact the undersigned attorney if it is believed that such contact will expedite the prosecution of the application.

In the event this paper is not timely filed, Applicants petition for an appropriate extension of time. Please charge any fee deficiency or credit any overpayment to Deposit Account No. 14-0112.

Respectfully submitted,
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